WHAT IS CLAIMED IS:

1. In an automotive power pivot door including a hinge device for permitting a door to pivot upward and downward between full-open and full-close positions about an upper end thereof relative to a vehicle body, a holder for holding the door at the full-open position, a reversible electric motor for driving the door to pivot upward and downward when energized and an electromagnetic clutch interposed between the motor and the door to selectively establish and break a torque transmission path from the motor to the door,

a control device for controlling the power pivot door, the control device having a control unit that is configured to carry out a routine which comprises:

de-energizing the motor and disengaging the clutch when the door is lifted up to the full-open position;

detecting a moved distance by which the door moves down from the full-open position within a first predetermined time (t1) from the time on which the clutch is disengaged;

engaging the clutch when the detected moved distance is equal to or longer than a first predetermined distance (L1);

disengaging the clutch again when a second predetermined time (t2) passes from the time on which the clutch is engaged;

repeating the process for engaging and disengaging the clutch while following the routine; and

judging that the holder fails to operate when the frequency of the engaged condition of the clutch indicates a predetermined frequency.

2. A control device as claimed in Claim 1, in which the control unit comprises:

a clutch OFF control section that carries out the disengagement of the clutch upon reaching of the door to the full-open position;

a first time counting section that counts the first predetermined time (t1) passing from the time on which the disengagement of the clutch is carried out by the clutch OFF control section;

a door lowering degree detecting section that is capable of judging whether or not the door moves from the full-open position by the first predetermined distance (L1) within the first predetermined time (t1) from the time on which the clutch is disengaged by the clutch OFF control section;

a clutch ON control section that carries out the engagement of the clutch when the door lowering degree detecting section judges that the door moves by the first predetermined distance (L1);

a clutch ON frequency judging section that counts the frequency by which the clutch ON control section carries out the engagement of the clutch and judges whether the counted frequency shows a predetermined frequency or not;

a second time counting section that, when the counted frequency fails to show the predetermined frequency, counts the second predetermined time (t2) and when the second predetermined time (t2) passes, causes the clutch OFF control section to disengaged the clutch; and

an instruction section that carries out a door lowering emergency operation when the clutch ON frequency judging section judges that the counted frequency shows the predetermined frequency.

3. A control device as claimed in Claim 2, in which the control unit is configured so that when the door lowering degree detecting section judges that the door fails to move by the first predetermined distance (L1), the instruction section finishes a repeated process thereby not to carry out the door lowering emergency operation.

4. A control device as claimed in Claim 3, in which the control unit further comprises a door lowering speed detecting section which, when the door movement by the first predetermined distance (L1) within the first predetermined time (t1) is judged by the door lowering degree detecting section, judges whether a lowering speed of the door is higher than a predetermined speed or not, and in which when the door movement by the first predetermined distance (L1) is judged by the door lowering degree detecting section and the lowering speed of the door higher than the predetermined speed is judged by the door lowering speed detecting section, the clutch ON control section carries out the engagement of the clutch.

5. A control device as claimed in Claim 4, in which the control unit is configured so that when the door movement by the first predetermined distance (L1) within the first predetermined time (t1) is not judged by the door lowering degree detecting section, the instruction section finishes the repeated process and stops execution of the door lowering emergency operation.

6. A control device as claimed in Claim 2, in which the control unit is configured so that when, due to the repeated process, the door lowering degree detecting section detects that the door moves by a second predetermined distance (L2) that is greater than the first predetermined distance (L1), the clutch ON control section carries out the engagement of the clutch and the instruction section finishes the repeated process and carries out the door lowering emergency operation.

7. A control device as claimed in Claim 6, in which the door lowering degree detecting section of the control unit is capable of judging whether or not the door moves from the full-open

position by the second predetermined distance (L2) within the second predetermined time (t2) from the time on which the clutch is disengaged by the clutch OFF control section, and in which when, due to the repeated process, the door lowering degree detecting section detects that the door moves by the second predetermined distance (L2), the instruction section finishes the repeated process and carries out the door lowering emergency operation.

8. A control device as claimed in Claim 2, in which the door lowering emergency operation is carried out by energizing the electric motor to rotate in a direction to drive the door to pivot down the door.

9. A control device as claimed in Claim 8, further comprising an alarm device that issues an alarm when the door lowering degree detecting section judges that, within the first predetermined time (t1), the door moves by a distance longer than the first predetermined distance (L1).

10. In an automotive power pivot door including a hinge device that permits a door to pivot upward and downward between full-open and full-close positions about an upper end thereof relative to a vehicle body, a gas stay that can hold the door at the full-open position when it is in a normal condition, a reversible electric motor that drives the door to pivot upward and downward when energized and an electromagnetic clutch that is interposed between the motor and the door to selectively establish and break a torque transmission path from the motor to the door,

a system for detecting an abnormal condition of the gas stay, the system including a control unit which is configured to carry out:

de-energizing the motor and disengaging the clutch when the door is lifted up to the full-open position;

detecting a moved distance by which the door moves down from the full-open position within a predetermined time (t1) that elapses from the time on which the clutch is disengaged;

engaging the clutch when the moved distance is equal to or longer than a first predetermined distance (L1);

disengaging the clutch again when a second predetermined time (t2) passes from the time on which the clutch is engaged;

counting a frequency by which the clutch takes the engaged condition; and

judging that the gas stay is in an abnormal condition when the counted frequency indicates a predetermined frequency.